

REMARKS

Claims 1-28 are pending in the present application and appear to be rejected. However, the Office Action Summary Sheet does not indicate whether any claims are allowed, rejected or objected to. Clarification is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page(s) is captioned "Version With Markings To Show Changes Made."

On page 2 of the outstanding Official Action, the drawings are objected to as reciting a reference number (48) which is not mentioned in the description. Applicant has amended claim 6 of the present application at lines 12 and 15 to change the number "46" to --48--. Item 48 is the "return spring" illustrated in the drawings. Item 46 is the belleville spring used to provide the desired preloading to the bearings. In view of the correction to the specification, item 48 referred to in the drawings is clearly discussed in applicant's specification. Accordingly, there is no further basis for objection to the drawings and any further objection thereto is respectfully traversed.

Claims 1-28 stand rejected under 35 USC §112 (second paragraph) as allegedly being indefinite. Specifically, the Examiner believes it is indefinite as to "how one of the first and second structures sandwich a portion of the other structure when both structures are on one of the mold parts" and the mold parts are movable along a mold movement path. If claim 1 is applied to the structure shown in applicant's Figure 3, it will clearly be obvious.

The two recited mold parts are the bottom end plug 12 and the lower mold half 16. Therefore, in the claim, the "at least one movable mold part" is item 12 and the "at least one other mold part" is item 16. The guide mechanism comprises a first structure 22 which is fixed to "at least one other mold part 16." A second structure, comprised of items 22 and 24, are fixed to the movable mold part 12, i.e. the bottom end plug 12 and in Figure 3 move together to the left and to the right in conjunction with the bottom end plug 12.

One of the first and second structures (in Figure 3 it is the second structure items 24 and 26) sandwiches a portion of the other structure (in Figure 3, structure 22). There are a plurality of bearings separating the first and second structures. There are two sets of bearing cages, the upper and lower bearing cages, 30 and 34, where the lower bearing cage 30 separates the first structure 22 from the lower portion of the second structure, i.e., 26, and the upper bearing cage 34 separates the first structure 22 from the upper portion of the second structure, i.e., 24.

The above discussed bearings permit movement along the mold movement path, i.e. the path of the bottom end plug left to right in Figure 3. Pursuant to the language of applicant's claim 1, at least one of the structures applies a preload pressure to the bearings in at least one direction normal to the mold movement path. The mold movement path of the bottom end plug is left to right in Figure 3, and the belleville spring 46 and its associated bolt which tend to squeeze the upper and lower portions 24 and 26, respectively, of the second structure together apply preload pressure to the bearings on either side of the first structure 22. This preload permits highly accurate positioning of

the bottom end plug in the mold during operation, which is the goal of the present invention.

As can be seen from Figure 3, the first and second structures could be reversed, with the first structure comprising a plurality of parts and the second structure comprising only a single structure. The benefit of the presently claimed invention would still be achieved because the preload applied to the bearings would accurately position the bottom end plug or any other mold part being guided by the guide mechanism.

It is suspected that in the review of claim 1, the Examiner perhaps mistakenly believed that the mold part which was being guided by the guide mechanism was mold parts 14 and 16, rather than mold parts 12 and 16. In view of the above reading of claim 1 directly onto applicant's preferred embodiment illustrated in Figure 3, it is clear that claim 1 and all claims dependent thereon are clearly definite and meet all requirements of 35 USC §112 (second paragraph). Any further objection to applicant's claims is respectfully traversed.

Claims 1-28 stand rejected under 35 USC §103 as being unpatentable over Nowicki (U.S. Patent 3,267,184) in view of Talasz (U.S. Patent 3,734,671). Firstly, the rejection of all claims under 35 USC §103 as unpatentable over the Nowicki/Talasz combination is defective, because at no point in the discussion does the Examiner address the requirement for some motivation or teaching for combining references. Even if the two cited references disclose among them all claimed structures, the Patent office is required to provide some motivation or indication of how or why one would be motivated to combine the references.

The Court of Appeals for the Federal Circuit has held in the case of *In re Rouffet*, 47 USPQ2d 1453, 1457-8 (Fed. Cir. 1998) that

"to prevent the use of hindsight based on the invention to defeat patentability of the invention, this court **requires** the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the **Examiner must show reasons** that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." (emphasis added).

The Examiner has provided no "reasons" or "motivation" for combining various bits and pieces from the separate references in order to solve the problem of properly guiding mold parts relative to each other. Accordingly, the rejection under 35 USC §103 has not been supported in the outstanding Official Action.

Moreover, the Examiner errs in his assessment of the prior art. The Examiner correctly notes that Nowicki teaches a blow molding mold with first and second mold parts, 32, 30, that move in a mold movement direction with respect to one another. The Examiner also correctly notes that a third mold part 94, which appears to be a bottom end plug, operates in conjunction with a "guide mechanism (34)." Up to this point in his description of the Nowicki reference, the Examiner appears to be absolutely correct.

However, it is the Examiner's discussion of the purported guide mechanism of Nowicki and his attempt to read it on the language of applicant's independent claim 1 which is clearly in error. The Examiner states that Nowicki teaches "a first structure that is fixed to one of the mold parts (74)." However, the Examiner fails to disclose any item which comprises the "first structure," unless he is referring to the cam block 74 itself.

This is a structure fixed to mold part 32. The Examiner also refers to "a second structure fixed to a movable mold part (34)" which is listed in the reference as "bottom platen 34." Assuming for the purpose of argument that the Examiner believes that structure 74 and structure 34 in Figure 2 of Nowicki comprise the first and second structures recited in applicant's claims respectively, there is no teaching that one of these structures sandwiches the other structure in accordance with applicant's claim language ("wherein one of said first and second structures sandwiches at least a portion of the other of said first and second structures").

Continuing with the analysis, the Examiner fails to provide any identification of any "first structure sandwiching at least a portion of the second structure (Figure 2)." In fact, the Nowicki reference itself indicates that structures 74 and 34 interrelate by virtue of the complementary cam surfaces 76 and 78 (See column 3, lines 65-70). While these cam surfaces hold bottom platen 34 and the mold bottom element 94 in position with the mold closed, they do not comprise any sort of a guide mechanism for the movable mold element 94. There is no sandwiching structure so that one structure moves at least partially within another structure.

The Examiner admits that "Nowicki fails to teach ball bearings between the first and second structures" and the other features of applicant's claim 1 and this admission is appreciated. The Examiner then suggests that Talasz teaches rollers, guide rails, to open and close mold elements. While applicant agrees that Talasz contains such a teaching, there is no teaching of the first and second structures interrelated in the fashion of applicant's independent claim 1, especially with bearings separating the first and second

structures, or where the bearings have a preload pressure in a direction normal to the mold movement path. As seen in Talasz, the mold movement path is left and right in Figure 1, and there is no disclosure of any preload on the bearings so as to ensure proper mold orientation, especially when the bearings wear slightly under use.

The Examiner suggests that "Nowicki can be modified to allow the movement of the mold part to be on ball bearings." However, the test of obviousness is not whether the prior art can be modified using 20/20 hindsight gained by reviewing applicant's claims, but whether Nowicki teaches or contains any suggestion for such modification. Clearly, neither Nowicki nor Talasz contain any such teaching or modification, and the Examiner is silent on this requirement for a rejection under 35 USC §103.

As a result of the above, the Examiner's failure to establish a *prima facie* case of obviousness under 35 USC §103 is indicative that there is no legal basis for rejecting the claims and any further rejection or objection thereto is respectfully traversed.

While applicant's additional independent claims 14, 18 and 28 recite additional more limited combinations of elements, neither these nor claims dependent thereon can be rendered obvious in view of the Nowicki and Talasz combination of references as noted above. Accordingly, any future rejection of any of claims 1-28 is respectfully traversed.

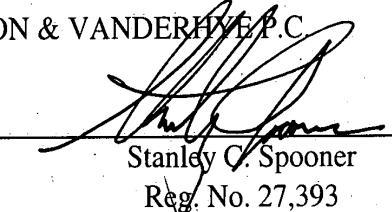
Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that claims 1-28 are in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a

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brief telephone or personal conversation will facilitate allowance of these claims, he is respectfully requested to contact applicant's undersigned representative.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE
IN THE SPECIFICATION

Page 6, the paragraph beginning at line 9:

As previously discussed, the cooperation between cam roller 18 and cam surface 20 (or curved cam surface 20a) moves the end plug mount 24, and bottom end plug 12 mounted thereon, into the mold forming position (wherein the parts of the mold are closed actually forming a mold). The guide mechanism 10 also includes a return spring [46] 48 which serves to bias the end plug mount 24 to the left as shown in Figures 1-3. The operation of the cam roller against the cam surface 20 (or 20a) when the upper mold half 14 descends toward the mold forming position (shown in Figure 2) overcomes the bias of return spring [46] 48, allowing the bottom end plug 12 to be moved into proper position relative the upper and lower mold halves. When the pressure of cam roller 18 against the cam surface 20 (or 20a) is withdrawn as the upper mold half 14 is moved away from the mold forming position, the return spring withdraws the bottom end plug 12 from its mold forming position to the mold open position.